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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/556,952	04/21/2000	Cherie R. Kagan	YOR9-2000 0186US1	6543

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EXAMINER

LORENZO, JERRY A

ART UNIT

PAPER NUMBER

1734

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/556,952

Applicant(s)

KAGAN ET AL.

Examiner

Jerry A. Lorengo

Art Unit

1734

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 30 is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

(1)

Allowable Subject Matter

Claim 30 has been found to be allowable over the prior art of record.

(2)

The following is a statement of reasons for the indication of allowable subject matter: Methods for the formation of a patterned thin film on a substrate having a patterned SAM underlayer provided thereon through the use of patterned stamp, such as taught by U.S. Patent Nos. 5,512,131 to Kumar et al. and 6,020,047 to Everhart, are known in the art. Although it is also known, as suggested by Jeon et al. in "Patterning of dielectric oxide thin layers by microcontact printing of self-assembled monolayers", to utilize octyltrichlorosilanes as the organic molecular species for forming the SAMs, none of the prior art specifically teaches or suggests such a method wherein the organic molecular species for forming the SAMs specifically comprises (tridecafluoro-1,1,2,2-tetrahydrooctyl)trichlorosilane.

(3)

Election/Restrictions

Applicant's election without traverse of claims 1-4 and 5-13 in Paper No. 7 is acknowledged.

(4)

Claim Rejections - 35 USC § 102

The rejection of claims 1, 2 and 4-11 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,512,131 to Kumar et al., as generally set forth in the first office action mailed May 1, 2002, stands.

(5)

Claim Rejections - 35 USC § 103

The rejection of claim 3 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,512,131 to Kumar et al., as generally set forth in the first office action mailed May 1, 2002, stands.

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(6)

The rejection of claim 13 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,512,131 to Kumar et al. in view of U.S. Patent No. 6,020,047 to Everhart and U.S. Patent No. 5,059,258 to Wefers et al., as generally set forth in the first office action mailed May 1, 2002, stands.

(7)

Response to Amendment

The rejection of claim 5 under the 2nd paragraph of 35 USC § 112, as set forth in the office action mailed 05/01/2002 has been withdrawn in view of the amendments to applicant claim 5. Newly added claim 30, encompassing the subject matter of applicant claim 12 in independent form has been indicated as allowable over the prior art of record. Claim 12 remains objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

(8)

Response to Arguments

Applicant's arguments filed October 7, 2002 have been fully considered but they are not persuasive.

With regards to the rejection of claims 1, 2 and 4-11 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,512,131 to Kumar et al., the Applicant argues that Kumar et al. is inapplicable because the thin-film material of claim 1, as opposed to that of Kumar et al., is not a self-assembled monolayer. The Applicant then points to claim 23 as disclosing the material from which the thin-film is composed. Firstly the Examiner respectfully submits that Applicant claim 23 is included within a non-elected invention and is not at issue here. Secondly, Applicant claim 1 does not exclude the SAM thin film 40 of Kumar et al. as claim 1 discloses only "a thin film material." Therefore, the examiner respectfully submits that the invention set forth in claims 1, 2 and 4-11 is properly rejected over Kumar et al. as applied and this rejection is made final.

With regards to the rejection of claim 3 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,512,131 to Kumar et al., the Applicant argues that contrary to the reasoning of the Examiner, there is no suggestion to one of ordinary skill in the art to utilize the method of Kumar et al. on an irregularly shaped substrate. The Examiner respectfully submits

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that the substrate 34 of Kumar et al. could be an "irregularly shaped substrate" given that Kumar et al. discloses that non-planar substrates such as particles, strands, tubing and spheres (column 14, lines 142-47). Therefore, the Examiner respectfully submits that the rejection of claim 3 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,512,131 to Kumar et al. has been made with proper motivational basis and is made final.

With regards to the rejection of claim 13 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,512,131 to Kumar et al. in view of U.S. Patent No. 6,020,047 to Everhart and U.S. Patent No. 5,059,258 to Wefers et al., the Applicant argues that neither Everhart or Wefers et al. are applicable in combination with Kumar et al. because neither of the secondary references are drawn to methods for the formation of a patterned film on a substrate having a patterned SAM underlayer.

As set forth in the first office action:

It would have been obvious to utilize phosphonic species, such as the octadecylphosphonic acid taught by Wefers et al., in the method of Kumar et al. motivated by the fact that Everhart, also drawn to methods for the deposition of a thin film material on a surface of a substrate having thereon a patterned underlayer of a SAM deposited through stamping (Figure 1) discloses that SAMs of phosphonic acid are useful in patterning metal or metal alloy coated substrates (column 3, lines 14-26).

Given the above combination and clear motivational statement, the Examiner respectfully submits that the application of the Wefers et al. and Kumar et al. references utilizing Everhart et al. as a link between the two renders Applicant claim 13 obvious. Therefore, the Examiner respectfully submits that the rejection of claim 13 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,512,131 to Kumar et al. in view of U.S. Patent No. 6,020,047 to Everhart and U.S. Patent No. 5,059,258 to Wefers et al. is proper and made final.

(9)

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

(10)

Applicant is encouraged to **FAX After Final Amendments** (37 CFR 1.116) to expedite delivery to the Examiner. The Group 1734 Facsimile number is **(703) 872-9311**. A duplicate mailed copy of the facsimile transmission is **not required** and will only serve to delay the processing of your application.

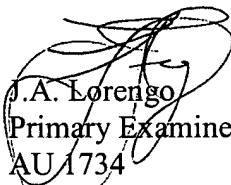
If the applicant prefers to mail in After Final correspondence it is highly recommended that such be mailed to **BOX AF** which will also facilitate processing from the mailroom and within Group 1700.

(11)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry A. Lorengo whose telephone number is (703) 306-9172. The examiner can normally be reached on Monday through Friday, 8:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (703) 308-3853. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7115 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


J.A. Lorengo
Primary Examiner
AU 1734
December 13, 2002